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patients with NP and AR. MRSA was found in 1% of control and in 40% of patients with NP and AR in 2002, 1% and 52% in 2003, 1% and 66% in 2004, 1% and 43% in 2005, 0,5% and 57% in 2006, and 1% and 58% patients in 2007. B1 MRSA strain was predominant. Children ages 4—7 years ($p < 0.02$), glucocorticoid use in NP ($p < 0.02$), rate of hospitalization ($p = 0.005$), and specific local IgE level ($p < 0.001$) were significantly associated with MRSA colonization.

Conclusion: The nasal carriage of MRSA in patients with nasal polyposis is high, undetectable, and growing. It is possible that allergy and specific IgE levels maybe the cause of nasal carriage of MRSA. Children with NP and AR are an unidentified and less well studied group at high risk for spreading MRSA in children's hospitals, day-care centers, and schools.

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69.020

Escherichia coli Pathotypes Isolated in Inflammatory Bowel Diseases and Oncological Diseases of Gastrointestinal Tract

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Introduction: In the literature there are many informations reporting on the relationship between *E. coli* and their ability to cause gastrointestinal diseases (Sooka et al., 2004). Some investigators (Boudeau et al., 2001) even indicate possible role of *E. coli* in the initiation of colorectal cancer.

The aim of our study was to indicate a possible association between *E.coli* and both inflammatory and oncological diseases analysing presence of E.coli pathotypes using demonstration of virulence genes in isolated strains.

Materials and Methods: For demonstration of virulence genes ipaH and iucC protocol according Kuhnert et al. (1997) was used. Demonstration of α-hly, afa, aer, cnf1, sfa, pap genes was performed according Le Bouguenec, et al (1992) and Yamamoto et al. (1995). stx1, stx2, ehly genes were detected according Paton & Paton (1998) and ial, st, lt, eae, bfpA genes were detected according Lopez-Saucedo et al. (2003). Specific gene products were detected using electrophoresis on 2.0% agarose gels and visualized by staining with ethidium bromide under UV light.

Results: Total of 437 *E. coli* strains were isolated from colon biopsy samples of 63 patients with inflammatory bowel disease (IBD): 85 strains in Crohn's disease (CD), 119 strains in ulcerative colitis (UC), 193 in non-inflammatory bowel disease (NonIBD) and 40 strains in colon cancer (NO). Adherent-invasive *E. coli* (AIEC) strains were found in the following frequencies: NO (73%), UC (50%), CD (35%) and 6.7% in non-inflammatory bowel disease. This result indicates possible role of AIEC in the pathogenesis of inflammatory bowel (CDEC) were isolated in patients with UC (24.1%) and CD (4.7%). No CDEC strains were isolated in NO patients. Gen pCVD432 typical in enteroaggregative E. coli (EAggEC) was detected only in 2.5% of tested *E. coli*. Results obtained indicate that CDEC may play role in pathogenesis of CD. Enteropathogenic E. coli (EPEC) and enterotoxigenic strains (ETEC) represented 1.2%, and 1.8%, respectively of all isolated *E. coli* strains. Enteroinvasive (EIEC) and shiga toxin-producing *E. coli* (STEC) were not found in our collection of samples.

Conclusion: Compared to other *E. coli* pathotypes a higher incidence of adherent-invasive *E. coli* isolated from biopsy samples from colon cancer and inflammatory bowel disease indicates possible role of the *E. coli p*athotype in the pathogenesis of these gastrointestinal diseases.

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Carriage of *Staphylococcus cureus* in Cats and Their Owners

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Objectives: The role of dogs, horses, and pigs as carriers of *Staphylococcus aureus* and sources of infection in humans is well recognized, but less attention has been paid to carriage in cats, though human infections from colonized feline sources have been reported. MRSA has been isolated from infections in cats, but there have been no large-scale studies of colonization of cats and their owners.

Methods: Nasal swabs, collected from 231 clinically-normal domestic cats and their owners (218) attending one of five veterinary clinics, were cultured on blood agar, mannitol salt agar (MSA), MSA with 6 μg/ml oxacillin, and enriched in brain heart infusion broth with 5% salt. *S. aureus* was identified using Staphaurex and resistance to 8 mg/ml acriflavine. Susceptibility to a range of antibiotics was determined by disc diffusion. MRSA was confirmed by the presence of mecA using PCR. Pulsed field gel electrophoresis (PFGE) was performed to determine if owners and their pets were co-colonized by similar *S. aureus* strains.

Results: 5.6% of cats and 24% of their owners were nasally colonized with *S. aureus*, two owners carrying MRSA. PFGE revealed that of the four co-colonized owner-cat pairs, three were indistinguishable, and the fourth differed by only one band Two of these owners were health care workers (HCW), and a third had a household member who had recently been hospitalized and received antibiotics. Of the two MRSA colonized owners, one was a HCW, colonized by a multi-resistant HA-MRSA. The second owner's strain was resistant only to beta-lactams and chloramphenicol.

Conclusions: Nasal carriage of *S. aureus* in cats was lower than the 8.8% we found in dogs, none being MRSA carriers. Carriage in cat owners was similar to the general population,